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(71) Applicant (for all designated States except US): **RIB-  
APHARM INC.** [US/US]; 3300 Hyland Avenue, Costa  
Mesa, CA 92626 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **HONG, Zhi**  
[US/US]; 79 Timberland, Aliso Viejo, CA 92656 (US).  
**RICKETTS, William** [US/US]; 24 Mayapple, Irvine, CA  
92612 (US). **DIAZ, Paul** [US/US]; Ribapharm Inc., 3300  
Hyland Avenue, Costa Mesa, CA 92626 (US).

(74) Agent: **DEMERS, James, P.**; Brown Raysman Millstein  
Felder & Steiner LLP, 900 Third Avenue, New York, NY  
10022 (US).

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For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: PARALLEL INDUCIBLE CELL-BASED KINASE SCREEN

(57) Abstract: A parallel inducible cell-based kinase screen (PICKS) includes a plurality of cells that express a kinase gene under the control of an inducer and a reporter gene, wherein the cells are derived from a single cell line, and wherein the reporter gene generates a signal in response to catalytic activity or inhibition of the expressed kinases. Particularly preferred systems include cells expressing kinases from a single kinase signaling pathway, kinases from a kinase family, and/or kinases from various different kinase signaling pathways. Consequently, contemplated systems provide a platform for screening for novel kinase inhibitors, inhibition specificity of particular kinase inhibitors, and for analysis of inter-pathway and/or intra-pathway inhibition of a kinase inhibitor.

WO 2004/061409 A3

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/40757

<b>A. CLASSIFICATION OF SUBJECT MATTER</b>		
IPC(7) : C12Q 1/48, 1/02 US CL : 435/15, 29		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols) U.S. : 435/15, 29		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) MEDLINE, AGRICOLA, CAPLUS, EMBASE, WPIDS, EAST		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,416,959 B1 (Giuliano et al.) 09 July 2002 (09.07.2002), especially columns 28-29 and 81-82.	1-5
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
<b>* Special categories of cited documents:</b>		
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family	
"P" document published prior to the international filing date but later than the priority date claimed		
Date of the actual completion of the international search	Date of mailing of the international search report	
08 July 2004 (08.07.2004)	18 AUG 2004	
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer David J Steadman <i>Hella Collins for</i> Telephone No. 703-308-0196	

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/40757

## Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claim Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claim Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claim Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:  
Please See Continuation Sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-5

Remark on Protest

☐  
☐

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

PCT/US02/40757

**BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING**

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

**Group I**, claims 1-5, drawn to the special technical feature of a method of kinase inhibition profiling.

**Group II**, claims 6-12, 20-26, and 31, drawn to the special technical feature of a high-throughput screening system and the first claimed method of use, i.e., a method of analyzing intra-pathway kinase inhibition of a pharmaceutically active compound.

**Group III**, claims 13-19 and 31, drawn to the special technical feature of a method of analyzing inter-pathway kinase inhibition of a pharmaceutically active compound.

**Group IV**, claims 27-30, drawn to the special technical feature of a method of data processing.

According to PCT Rule 13.2 unity of invention exists only when there is a shared same or corresponding special technical feature among the claimed inventions. The inventions of Groups I-IV each has a different special technical feature not shared by the remaining Groups. Group I, which has the special technical feature of a method of kinase inhibition profiling, is not shared by any of the remaining groups. Group II, which has the special technical feature of a high throughput screening system, is not shared by any of the remaining groups. Group III, which has the special technical feature of a method of analyzing inter-pathway kinase inhibition, is not shared by any of the remaining groups. Group IV, which has the special technical feature of a method of data processing, is not shared by any of the remaining groups.

In the absence of any response from Applicant, this Authority will establish the International Search Report based on the main invention, i.e., the claims of Group I. The claims drawn to the main invention are as follows: claims 1-5.